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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,969	03/07/2005	Gerhard Priwe	60287.0001USWO	3934
23552	7590	06/09/2008		
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			EXAMINER	
			CHEN, RICHARD Y'S	
			ART UNIT	PAPER NUMBER
			4111	
			MAIL DATE	DELIVERY MODE
			06/09/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/521,969

**Applicant(s)**

PIRIWE, GERHARD

**Examiner**

RICHARD CHEN

**Art Unit**

4111

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-4 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/CI/100)  
Paper No(s)/Mail Date 03/07/05, 1/14/05  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Piriwe (EP 1 022 226 A1) using (US Patent 6,528,152 as English translation) in views of Walter et al. (2004/0256769 A1).

- With respect to claims 1 and 2, Piriwe teaches the method of making thermoplastic foamed stoppers (abstract). Piriwe further teaches that the stopper contains inorganic pigments, which change color under the influence of the heat generated from a laser beam (col. 2, lines 60-63). Piriwe fails to teach using an unfocused laser beam to change the color of the stoppers.
- However, Walter teaches to use the heat of unfocused laser beam to modify the surface of expanded (i.e. foamed) thermoplastic material [abstract; 0061]. Walter further teaches unfocused laser for treating a surface since it is "relatively insensitive to the distance between the laser turn-down mirror and the surface being treated, therefore the laser has a long "depth of field" along the vertical axis" and it is also not limited to a planar surface and is well suited for 3-D surfaces [0061]. It would have been obvious to a person of ordinary skill in the art at the time of invention to modify Piriwe's invention by irradiating the stopper with an unfocused laser beam for

changing the color of the pigments of a foamed stopper, because as noted earlier, Walter, drawn to heat treating a 3-D thermoplastic foamed, teaches that unfocused laser beam is "relatively insensitive to the distance between the laser turn-down mirror and the surface being treated, therefore the laser has a long "depth of field" along the vertical axis", which is excellent for irradiating three-dimensional articles [0061] such as cork stoppers.

- With respect to claims 3 and 4, the wobble frequency of the laser beam on the foamed plastic would always be lower than the wobble frequency of the unfoamed plastic, because this phenomena is an inherent property of using an unfocused laser on a thermoplastic material. Likewise, the energy irradiated from the foamed and unfoamed plastic is always the same, because this is also an inherent property of using an unfocused laser on a thermoplastic material.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 is indefinite, because there is no positive antecedent basis for limitation: "the wobble frequency".

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD CHEN whose telephone number is (571)270-5523. The examiner can normally be reached on Monday-Thursday, 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sam Yao can be reached on 571-272-1224. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RC

/Sam Chuan C. Yao/  
Supervisory Patent Examiner, Art Unit 4111